
MUSIC PRINTING OPTION
USER GUIDE

Revision C.1

July, 1984

* PRELIMINARY VERSION *

CONTENTS OF THIS MANUAL

This manual explains how to use the Music Printing Option (Revision C.1) to transcribe sequences in the Synclavier (R) memory recorder. It assumes that you are already familiar with the Synclavier (R) Real-Time Performance system, the Monitor, SCRIPT, and the computer terminal. This manual introduces the basics of Music Printing. For complete details, see the Music Printing Reference Manual.

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CONVENTIONS USED

In Music Printing, the terminal keys have many special functions. To distinguish between the main and keypad keys, we have used the following conventions in this manual:

1. Numerical or alphabetical keys on the main keyboard are indicated by a capital letter or a number (e.g., 1, H).
2. Numerical and minus, comma, and period keys on the keypad are indicated by the letters KP before the key name (e.g., KP 1, KP comma).
3. Keys with a special name are referred to by name (e.g., TAB, CTRL, RETURN, ENTER, PF1, PF2).
4. When two keys must be pressed simultaneously, they are separated by a hyphen (e.g., CTRL-D).

PREFACE

The Music Printing Option allows you to do your own professional copying swiftly and accurately. Performances created on the Synclavier (R) keyboard or with the Synclavier (R) Digital Guitar Option, as well as compositions written in SCRIPT, can be transcribed directly into high quality notation.

The Music Printing Option is able to meet a wide variety of transcription requirements. By choosing items on the Music Printing menus, you will be able to:

- * Create anything from an individual part to a full orchestral score with up to sixteen separate parts.
- * Create parts with one or two voices.
- * Divide up the notes of a keyboard performance onto grand (or double) staves.
- * Transcribe music which changes in tempo as well as music recorded with the click track.
- * Transpose the recorded music either by specifying an instrument key or by specifying an interval in semitones.
- * Decide on how you want to transcribe accidentals, syncopated notes or guitar pitch bends.
- * Format your scores with braces and brackets between parts.
- * Determine the spacing between notes on the staff and between the staves on the page.
- * Choose any page width within the capabilities of your printer.
- * Choose any page length up to 60 inches.

Although most of the transcription is performed automatically according to your specifications on the menus, Music Printing includes an Editor which can be used to add to and edit your score in many ways.

With the Editor, you will be able to:

- * Add musical symbols, expression marks, slurs, crescendos and decrescendos, and repeat signs.
- * Type in lyrics and other text.
- * Change the actual music by adding or deleting a note or by changing the pitch, duration, or starting time of a note.

- * Change the clef, time signature, key signature, or value of the beat anywhere in the piece.
- * Create pickup measures.
- * Compress or expand the spacing around a single note or between the notes in a measure.
- * Add commands which will produce correctly transcribed triplets, quintuplets, and other irregular rhythmic groupings. You can even have unequal groupings in the upper and lower voices in the same measure, such as triplets against duplets, quintuplets against triplets, and so forth.
- * Change the beaming between notes, the stem directions of chords, and the direction of ties.

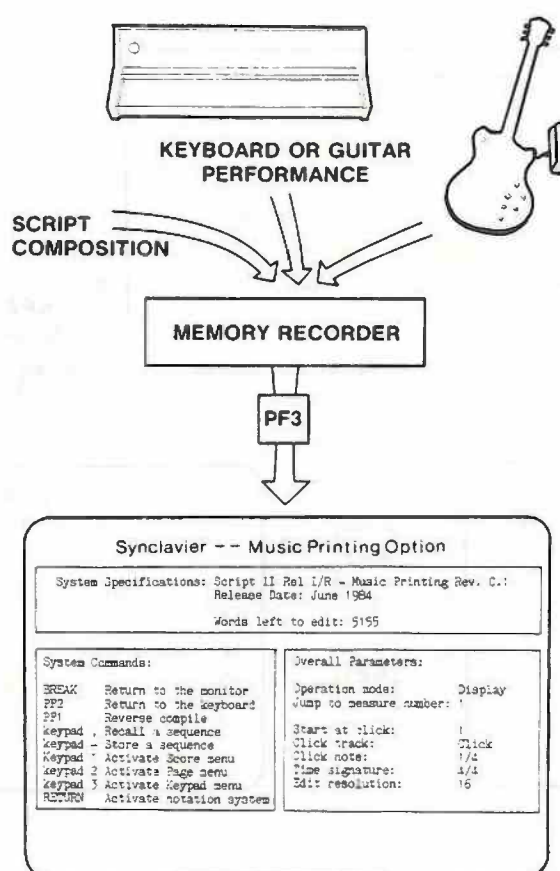
If you have used Music Printing before, you will find that Revision C.1 is easier to operate and more flexible. The menus have been expanded and reorganized. The Editor has been modified to allow more accurate positioning of text and symbols and to include many new symbols and commands. Printed scores can now be made on both the 80- and the 132-column PRISM printers. There have been extensive internal changes in the software as well. The processing of scores is now faster and requires less computer memory.

THE MUSIC PRINTING SYSTEM

The Music Printing Option provides you with a powerful tool for creating almost any kind of notation, from single instrumental parts to complete orchestral scores.

You enter the Music Printing system from the Synclavier (R) Real-Time Performance system after placing a sequence of notes in the memory recorder.* You may enter the sequence by recording a keyboard or guitar performance or by playing a SCRIPT composition.

When you are ready to transcribe the sequence, you press the PF3 key on the terminal keyboard. The Music Printing software module will then be placed in computer memory and activated and the Music Printing Main Menu will appear on the terminal screen.

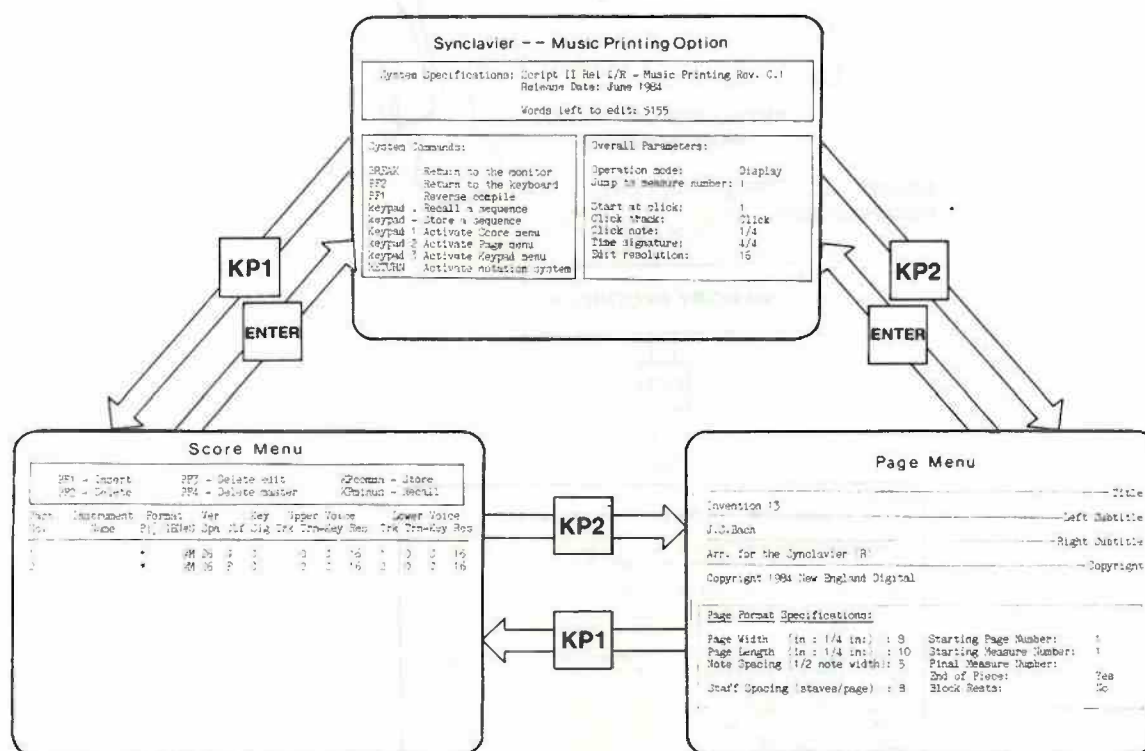


From the Main Menu, you command the operation of the Music Printing system by typing single keystroke commands. These commands, such as RETURN to display the notation or PF2 to return to the keyboard, are all listed and briefly explained on the screen (and in depth in the Music Printing Reference Manual).

* It is also possible to go directly from the SCRIPT monitor to Music Printing by typing the Monitor command PLOT. See "Activating Music Printing" in the Music Printing Reference Manual.

You also use the Main Menu and two other menus to tell the computer precisely how to transcribe the sequence. Items on the Main Menu are used to specify the timing base, that is, to tell the computer how to rhythmically interpret each note and what time signature to use. Then, items on the Score Menu are used to tell the computer how to transcribe the individual parts in the score, for example, the track, clef and key to use for each, and how to group the parts. Finally, items on the Page Menu are used to set up the width and length of the score on the printed page and to specify a title and so forth for the first page of notation.

You can go back and forth between these menus easily; press KP 1 for the Score Menu, press KP 2 for the Page Menu, and press ENTER to return to the Main Menu.



After you have entered the basic instructions for transcription on the menus, you direct the computer to generate the notation. There are three notation modes: display, edit, and hardcopy. The display mode is used for a quick viewing of a keyboard or guitar performance. You can see how the computer has interpreted the notes that you played, in terms of the instructions you entered on the menus, but you will not be able to change anything. The edit mode is used to display a single system* of the notation on the screen. You may then

* In notation, a group of staves, which includes one line for each part in the score, is called a system.

The mode is selected by the "Operation Mode" item on the Main Menu. Move the cursor to that item and press TAB for "Display," 1 for "Edit," or 2 for "Hardcopy." Then press RETURN to start the notation.

[illegible]

In the next three chapters, you will try out the different menus and notation modes, do some editing, and print out a score. In the process, you will be introduced to the basic Music Printing system. This manual, however, ignores many, many details that you will find

very useful and exciting for specific copying situations. Complete details for recording for Music Printing, for using each menu, for editing, and for printing are covered in the Music Printing Reference Manual.

GETTING STARTED 1 - USING THE MENUS

In Part 1 of "Getting Started," you will use the Music Printing Option to transcribe your sample SCRIPT user file BACH13.

ACTIVATING MUSIC PRINTING

1. Load SCRIPT with Music Printing:
 - a. Place the SCRIPT Release I system diskette in the left-hand drive and the SCRIPT user diskette with Music Printing Revision C.1 in the right-hand drive and press LOAD.
 - or
 - b. Bootload your Winchester as described in "Starting the System" in the Introduction to the Terminal Support Options manual.
2. Recall the SCRIPT user file BACH13 from the Winchester disk or from your demo SCRIPT user diskette by typing
OLD BACH13
3. Type
PLAY

The file will be converted into a Synclavier (R) sequence, placed in the memory recorder, and played.
4. Press PF3.

The sequence will stop playing, the lights on the keyboard unit will be extinguished, and the Music Printing software module will be placed in computer memory and activated. The Music Printing Main Menu will appear on the screen.

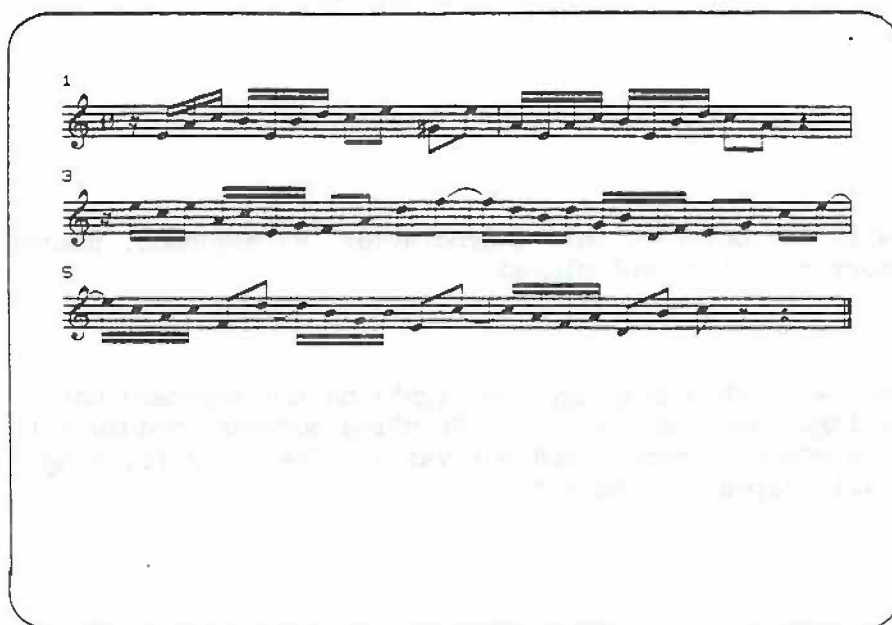
DISPLAYING NOTATION

In this exercise, you will transcribe BACH13 with all the default transcription instructions.

1. Press RETURN.

This command activates the notation system. The notes in the sequence in the memory recorder will be transcribed according to current settings on the Main, Score Format, and Page Menus. Since you haven't changed any of these settings, the default settings will be used.

Thus, because of defaults on the Main Menu, the notation will be in the Display mode; notes equal to a full click will be transcribed as quarter notes; and a time signature of 4/4 will be in effect. Because of defaults on the Score Menu, you will see only a single part which has the notes from track 1, a G clef, and a key signature of C.



2. Return to the Main Menu by pressing the ENTER key.

DISPLAYING A SECOND PART

You are now going to instruct the computer to transcribe the second part.

1. Press KP 1.

The Score Format menu will appear on the screen. You will see instructions at the top of the screen and then a tabular sort of menu consisting of various headings. Beneath the headings is the part line for Part 1.

Part No.	Instrument Name	Format P{[GBN#S	Ver Spa	Key Clf	Upper Voice Trk	Lower Voice Trk	Trn-Key Res	Trn-Key Res
1		*	#M 26	G C	0 C 16	1 0 C 16		

The part line represents the part you have already seen displayed. You need not be concerned about all the items on the part line right now, but do note the G under "Clf" (clef), the C under "Key Sig", and the 1 under "Trk" (Track) in the Lower Voice.

Each part on the score requires its own part line on the Score Menu. In order to display the second part, in this case the bass clef, you must add another part line to the Score Menu.

2. Press PF1.

Each time you press the PF1 key, another part line with default settings will be added below the line on which the cursor is located. The cursor will be moved down to the new line.

For your second part, you will keep most of the default settings but will specify a different track and a different clef.

3. Press the right arrow key to move the cursor to the column under "Clf".
4. Type F for F, or bass, clef.
5. Move the cursor further to the right to the column under "Trk" column under "Lower Voice". This is where you specify the number of the track to be used for the part.

(Note that for some music you will want to create parts with two melodic lines, or voices, on the same staff. The "Trk" item under "Upper Voice" will be where you specify the track for the second, or upper, voice.)

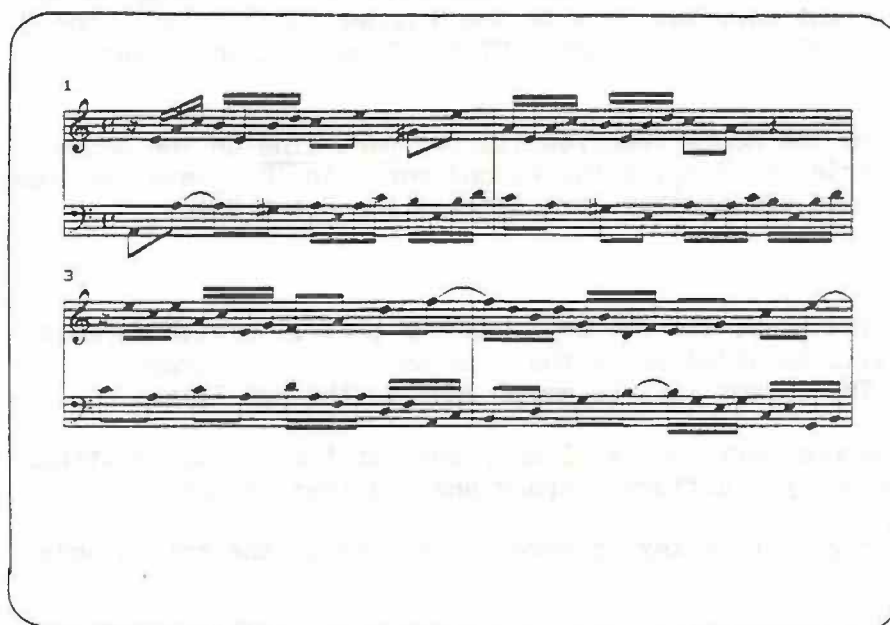
6. Type 2 for track 2.

The two lines on the menu should now read:

Part No.	Instrument Name	Format P{[GEN#S	Ver Spa	Key Clf	Sig	Upper Voice Trk Trn-Key Res	Lower Voice Trk Trn-Key Res
1		*	#M 26	G	C	0 C 16	1 0 C 16
2		*	#M 26	F	C	0 C 16	2 0 C 16

7. Now press ENTER to return to the Main Menu. Pressing ENTER always restores the Main Menu, whether you are viewing the Notation Display or Editor or working with any menu.
8. Press RETURN.

The computer will once again refer to the menu instructions and will display the following notation. Both parts will be displayed.



9. To see the rest of the composition, press KP 0.

10. Press ENTER to return to the Main Menu.



GETTING STARTED 2 - EDITING

You are now going to use the Music Printing Editor. This is different from the Display Mode in that it only presents one system of the score at a time. More importantly, it allows you to add to and change the notation; it is not merely a display.

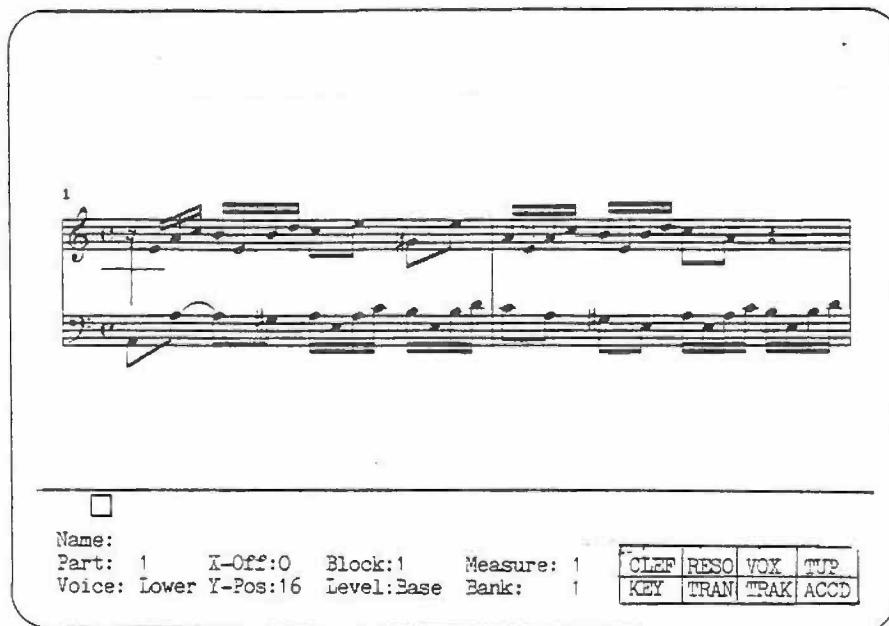
ACTIVATING THE EDITOR

1. On the Main Menu, make sure the cursor is on the Operation mode item in the right-hand box.
2. Press 1.

The word "Edit" should replace the word "Display."

3. Press RETURN.

The first system of the BACH13 composition will now be drawn in the center of the screen.



1

Name:

Part: 1 X-Off: 0 Block: 1 Measure: 1

Voice: Lower Y-Pos: 16 Level: Base Bank: 1

CLEF	RESO	VOX	TUP
KEY	TRAN	TRAK	ACCD

You will see a crossbar under the rest in the first measure. This is the editing cursor.

MOVING AROUND

You can move the cursor to the exact point on the score where you want to write some text, draw a symbol or enter a command which will change the music or the way it is transcribed.

You use the left and right arrow keys to move from note to note on a line. You use the PF3 and PF4 keys to make fine horizontal movements around a note. You use the up and down arrow keys to move up and down within the staff. You use the PF1 and PF2 keys to move up and down between the staves.

Try moving around BACH13 as follows:

1. Move the cursor across the line from note to note using the right arrow key.

The cursor will stop once under each sixteenth note and twice under each eighth note. A default divides each measure into a series of blocks equal to sixteenth note segments. The cursor stops in each block. The default, called the Edit Resolution, is set on the Main Menu and is usually set to match the shortest note in the piece.

2. Move the cursor back across the line by pressing the left arrow key.
3. Now press PF4 to move the cursor a short distance (half a notehead) to the right.
4. Press PF3 to move the cursor backwards in half noteheads.
5. Move the cursor up and down within the staff by pressing the up and down arrow keys. The cursor will move from space to line and from line to space.
6. Now press PF2 key to move to the staff below.

The Part number below will change from 1 to 2.

7. Press PF1 to move back up to the first staff.

This exercise shows you how to move around but there are several important details concerning cursor movement covered in the Music Printing Reference Manual. Be sure to read the sections on "Edit Resolution" in "Rhythmic Transcription" and "Moving Around the Notation" carefully before you do any extensive editing.

PRESSING TAB TO ADD A SYMBOL

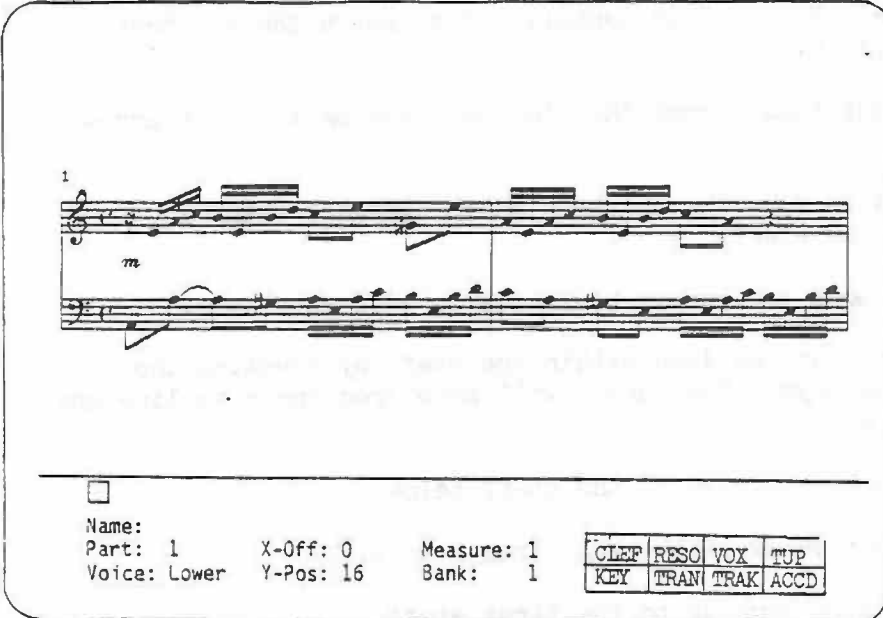
Music Printing has over 50 symbols and over 30 commands which you can add to your score. There are two ways to add a symbol or a command: with the TAB key or with the keypad. In the first method, you add a symbol or a command by pressing the TAB key, typing the name of the symbol or command, and then pressing RETURN.

1. Move the cursor so that it is beneath Part 1 under the first rest.
2. Press TAB.

The screen will ask you for a:

Symbol or Command name:

3. Type M (this is the name of the symbol which draws an italic m).
4. Press RETURN.



The screenshot shows a music printing interface. At the top, there is a musical score with two staves. The first measure of the top staff contains an italicized 'm' symbol. Below the score, there is a status bar with the following information:

☐ Name:
Part: 1 X-Off: 0 Measure: 1
Voice: Lower Y-Pos: 16 Bank: 1

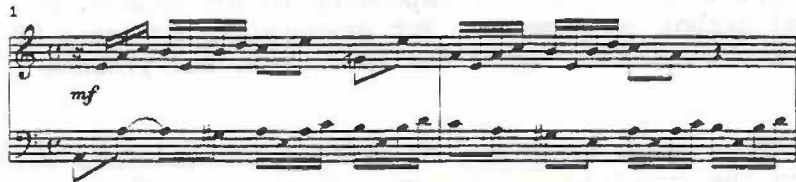
CLEF	RESO	VOX	TUP
KEY	TRAN	TRAK	ACCD

An italic m will be drawn.

5. Now, without moving the cursor, press TAB again.
6. Type the letter F (this is the name of the symbol which draws an italic f) and press RETURN.

You have just added the mezzoforte abbreviation to your notation.

Turn to the Appendix of the Music Printing Reference Manual for a complete list of symbols that may be added in this way.



☐

Name:
 Part: 1 X-Off:0 Block:1 Measure: 1
 Voice: Lower Y-Pos:16 Level:Base Bank: 1

CLEF	RESO	VOX	TUP
KEY	TRAN	TRAK	ACCD

move
down
figure

USING THE KEYPAD TO ENTER AN EDIT COMMAND

Now, you will use the keypad to enter a command (although you can use the TAB procedure for commands if you want). The keypad allows you to accomplish the same thing as the TAB procedure in a keystroke or two.

On the lower right corner of the screen, you will see a rectangle, divided into eight squares. The eight squares represent the symbol/command keys, which are the 7, 8, 9, minus, 4, 5, 6, and comma keys on the keypad. In each square is printed the name of a command or a symbol. By pressing the key corresponding to the square, you enter the assigned symbol or command. For example, by pressing KP 7, it's as if you has pressed TAB, typed the name CLEF, and pressed RETURN.

There are six separate sets, or banks, of symbols and commands which may be assigned to the symbol/command keys. By pressing KP 1, 2, or 3 (or these same three keys preceded by the KP period key) you can change the bank.

1. Press KP 2.

Now if you look at the box to the left you will see a different set, the second bank, of symbol and command names.

1

mf

□

Name:
Part: 2 X-Off:0 Block:1 Measure: 2
Voice: Lower Y-Pos:16 Level:Base Bank: 2

BBRK	NBRK	SDIR	SPLT
BMND	NMND	BDIV	FORM

The BMND, or "mend beam," command is now assigned to KP 4. You are going to use this command to join the beam between the A and the G# in the second measure in the bass clef.

2. Using the PF2 and right arrow keys, position the cursor under the G# in the second measure in the bass clef.

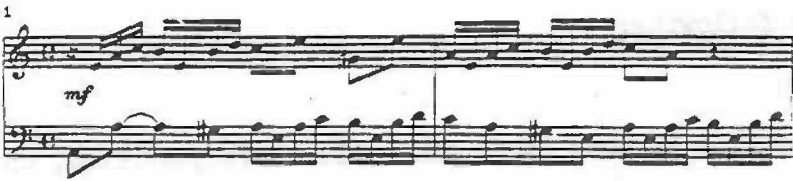
3. Press KP 4.

You have just entered the BMND command, which tells the computer to mend the beam between the G# and the previous note.

You will see a light vertical line drawn on the staff. This shows you that a command has been entered at that spot. Before you can see the effect of this command, however, you must replot, or redraw, the notation.

4. Press CTRL-R.

Pressing CTRL-R tells the computer to replot the current screen, taking into account any new (or previously added) editing commands.



1

mf

☐

Name:
Part: 2 X-Off:0 Block:1 Measure: 2
Voice: Lower Y-Pos:16 Level:Base Bank: 2

BERK	NBRK	SDIR	SPLT
BMND	NMND	BDIV	FORM

You will note that now the four eighth notes are joined over a single beam.

5. To return to the Main Menu, press ENTER.

Any symbol or command can be assigned to one of the keypad banks by typing its name into one of the squares on the Keypad Menu. Furthermore, any command or symbol can be entered with the TAB procedure.

This brief exercise just gives you a taste of the editing process. Turn to the Music Printing Reference Manual for the details.

GETTING STARTED 3 - PRINTING

ADDING A TITLE

Now you will prepare your score for printing.

1. From the Main Menu, press KP 2 to recall the Page Menu.
2. Press the up arrow key repeatedly to move the cursor to the topmost cursor position, to the left just under the horizontal line. This is where you type in the title line.

3. Type in the following title:

Invention 13

This title, in large bold type, will be centered at the top of the first page of the score.

4. Now use the down arrow to move the cursor down a line to the left subtitle line.

5. Type in the following:

J. S. Bach

This text will be printed below the title, left justified, on the first page.

6. Then move down the cursor down a line to the right subtitle line.

7. Type in the following:

Synclavier

This text will be printed below the title, right justified.

8. Move down one more line to the copyright line and type:

Copyright @ 1984 New England Digital

This text will be centered below the notation on the first page. The @ will produce a copyright symbol.

9. Then press ENTER to return to the Main Menu.

You will be using the default settings for 8 1/2 by 11 inch paper, that is, 8 inches by 10 inches.

PRINTING THE NOTATION

Now you will print the notation on paper. (First refer to the Synclavier (R) Setup Manual for instructions on setting up the printer and aligning the paper. For this exercise, it would be a good idea to use pinfeed paper.)

When the printer is ready, follow this procedure for printing BACH13.

1. Make sure the cursor is on top of the Operation mode item in the right-hand box.
2. Press 2. The word "Hardcopy" should appear.
3. Press RETURN.

The notation will be drawn on the screen (in odd chunks) and then printed on paper.

When printing is completed, the Main Menu will be restored to the screen.

Invention 13 1

J. S. Bach Synclavier



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You have just been introduced to the Music Printing system. There are many more options than we have covered here for creating different kinds of scores. Turn to the Music Printing Reference Manual for complete instructions on how to record and transcribe your own music.